

ABSTRACT OF THE DISCLOSURE

A digital serial communications hub has the ability to delay, route and regenerate data on the fly at mixed baud rates, mixed character framing bits, and mixed protocols without prior setup. In addition, the communications hub stores and retrieves serial data in the time domain, and employs a simple and reliable error correction routine that takes advantage of the time domain format of the data. Physically, the communications hub is implemented as a circuit card integrating a central processor with several serial communications ports. The serial ports connect to a combination of electrical interfaces that include RS232, RS485, TTL, and Fiber Optic. The serial communication ports are routed through a central flow processor that controls data flow into and out of the circuit card via serial communications connectors.